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SOGA1 Antibody

Catalog # ASC11703

Product Information

Application	WB, IF, E
Primary Accession	O94964
Other Accession	NP_954650, 66773344
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	183858
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	SOGA1 antibody can be used for detection of SOGA1 by Western blot at 1 - 2 g/ml.

Additional Information

Gene ID	140710
Other Names	Protein SOGA1, SOGA family member 1, Suppressor of glucose by autophagy, Suppressor of glucose, autophagy-associated protein 1, N-terminal form, C-terminal 80 kDa form, 80-kDa SOGA fragment, SOGA1, C20orf117, KIAA0889, SOGA
Target/Specificity	SOGA1; SOGA1 antibody is human specific. At least four isoforms of SOGA1 are known to exist.
Reconstitution & Storage	SOGA1 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year.
Precautions	SOGA1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	MTCL2 (HGNC:16111)
Function	Microtubule-associated factor that enables integration of the centrosomal and Golgi-associated microtubules on the Golgi membrane, supporting directional migration. Preferentially acts on the perinuclear microtubules accumulated around the Golgi. Associates with the Golgi membrane through the N-terminal coiled-coil region and directly binds microtubules through the C-terminal domain (By similarity). Required for faithful chromosome segregation during mitosis (PubMed:33587225). Regulates autophagy by playing a role in the reduction of glucose production in an adiponectin- and insulin- dependent manner (By similarity).

Cellular Location	Cytoplasm, cytoskeleton. Golgi apparatus membrane {ECO:0000250|UniProtKB:E1U8D0}. Midbody Note=Associates with microtubules during late mitosis and interphase

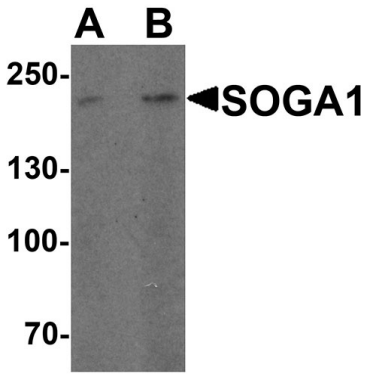
Background

The recently identified protein suppressor of glucose by autophagy protein 1 (SOGA1) has been found to be involved in the regulation of autophagy (1). SOGA1 is thought to contribute to adiponectin-mediated insulin-dependent inhibition of autophagy during the activation of adenosine monophosphate kinase (AMPK) (1,2). SOGA1 contains an internal signal peptide that enables the secretion of a circulating fragment of SOGA1, providing a surrogate marker for intracellular SOGA1 levels (2). Knockdown of SOGA1 elevated glucose production in primary hepatocytes indicates that SOGA1 is an inhibitor of glucose production. It thus might be useful as a novel therapeutic target for diabetes (3).

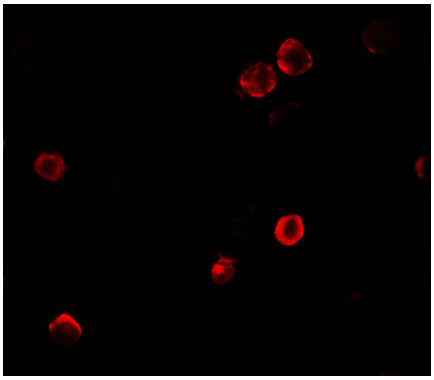
References

Cowherd RB, Asmar MM, Alderman JM, et al. Adiponectin lowers glucose production by increasing SOGA. Am. J. Pathol. 2010; 177:1936-45.
Madi T, Balamurugan K, Bombardi R, et al. The determination of tissue-specific DNA methylation patterns in forensic biofluids using bisulfite modification and pyrosequencing. Electrophoresis 2012; 33:1736-45.
Forbes JM. The physiological deadlock between AMPK and gluconeogenesis: SOGA, a novel protein, may provide the key. Am. J. Pathol. 2010; 177:1600-2.

Images



Western blot analysis of SOGA1 in Hela cell lysate with SOGA1 antibody at (A) 1 and (B) 2 µg/ml.



Immunofluorescence of SOGA1 in HeLa cells with SOGA1 antibody at 5 µg/mL.

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